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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,251	05/31/2001	David P. Anderson	UNTD:015	6626

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EXAMINER

SIDDIQI, MOHAMMAD A

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 10/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

25

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/872,251		ANDERSON ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Mohammad A Siddiqi		2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 May 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>01/10/02,06/12,03</u>   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-31 are presented for examination.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1 –13, 16-28, and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Getchius et al. (6,643,640) (hereinafter Getchius).

4. As per claim 1, Getchius discloses a plurality of distributed worker systems, the worker systems acting as data servers (808,810 fig 2, col 5, lines 19-23);

at least one coordinator system configured to communicate with the plurality of worker systems through a network (864, fig 4, col 6, lines 9-27); and

a database administered by a first entity utilizing the coordinator system and the plurality of worker systems (860, fig 4, col 6, lines 9-27 and col 12, lines 3-5), wherein at least a portion of the plurality of worker systems (884, fig 23) are owned and operated by at least one second entity that is different from the first entity (858- 864 fig4, col 6, lines 9-27).

5. As per claim 8, Getchius discloses a distributed database system, comprising: at least one thousand distributed worker systems (808, 810, fig 2), the worker systems acting as data servers (808, fig 2, col 11, lines 31-38); at least one coordinator system configured to communicate with the worker systems through a network (854, fig 4, col 11, lines 13-15); and a database administered by utilizing the at least one coordinator system and the plurality of worker systems (884, fig 23, col 11, lines 30-40) .

6. As per claim 11, Getchius discloses a distributed processing system providing database operations, comprising: a plurality of client systems running a client agent program (1904, fig 1), the client agent program comprising a database module (1802-1806, fig 3, col 5, lines 37-40); at least one server system configured to communicate with the plurality of client systems through a network to coordinate database workloads processed by the database modules (808, fig 2, col 6, lines 46-54); and a

capabilities database coupled to the server system (808,814,fig 2, col 4, lines 54-64), the capabilities database comprising data concerning processing capabilities for the client systems (col 4, lines 50-64); wherein the server system utilizes the capabilities database to schedule database workloads for the database modules (col 6, lines 46-57).

7. As per claim 17, the claim is rejected for the same reasons as claim 8, above.

8. As per claim 24, the claim is rejected for same reasons as claim 8, above.

9. As per claim 26, the claim is rejected for the same reasons as claim 11, above.

10. As per claims 2 and 18, Getchius discloses the plurality of worker systems (col 12, lines 3-5) comprise over a thousand systems (808,810, fig 2).

11. As per claim 3, Getchius discloses the coordinator system maintains information about the current performance and availability of each of the

worker systems (col 6, lines 43-50 and col 11, lines 31-38).

12. As per claims 4 and 19, Getchius discloses operators of each worker computer can control parameters of data server usage for the worker computer (configuration file, col 6, lines 60-62 and col 11, lines 31-38).

13. As per claims 5 and 20, Getchius discloses the controlling parameters comprise an amount of network bandwidth utilized, disk space usage, or hours of usage (col 7, lines 31-16).

14. As per claims 6 and 21, Getchius discloses data and indexing information for the database is organized in a multi-level hierarchy (col 33, lines 41-47 and 53-61).

15. As per claims 7 and 22, Getchius discloses distribution of data, index information, and user requests are dynamically modified in response to an actual load to optimize performance of the database system (weighting algorithm, col 33, lines 54-67).

16. As per claims 9 and 25, Getchius discloses the database is administered by an entity and the worker systems are owned and operated by the same entity (808, fig 2, col 4, lines 54-64).

17. As per claims 10, 16, 23, and 31, Getchius discloses the network comprises the Internet (col 4, lines 39-43).

18. As per claims 12 and 27, Getchius discloses a system load database comprising load data about each client system (col 5, lines 66-67 and col 6, lines 1-7), the load data identifying current database workload processing utilization for the client system (col 5, lines 21-30 and col 6, lines 50-54).

19. As per claims 13 and 28, Getchius discloses the server system utilizes the current load data to balance database workloads among the client systems (col 6, lines 60-66).

### ***Claim Rejections - 35 USC § 103***

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having

ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 14, 15, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Getchius et al. (6,643,640) (hereinafter Getchius) in view of Nisan et al (The POPCORN MARKET- an Online Market for Computational Resources, ACM 1998, by Noam Nisan and Ori Regev) (hereinafter Nisan).

22. As per claims 14 and 29, Getchius fails to disclose further comprising an incentives database coupled to the server system, the incentives database comprising incentive data for each of the client systems, the incentive data acting to encourage each client system to be utilized for objectives of the distributed processing system. However, Nisan discloses further comprising an incentives database coupled to the server system, the incentives database comprising incentive data for each of the client systems, the incentive data acting to encourage each client system to be utilized for objectives of the distributed processing system (page 150, section 3.2 The money). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Getchius with Nisan. The motivation would have been to motivate processors to provide their CPU cycles to other user's computation.



23. As per claims 15 and 30, Getchius fails to disclose the incentive data comprises sweepstakes entries for database tasks accomplished by each client system. However, Nisan discloses the incentive data comprises sweepstakes entries for database tasks accomplished by each client system (page 150, section 3.2, The Money). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Getchius with Nisan. The motivation would have been to reward users for providing their CPU cycles to other user's computation.

### ***Conclusion***

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

6,604,122 teaches distributed processing.

6,574,628 teaches distributed task execution.

5,881,232 teaches distributed query processing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad A Siddiqi whose telephone number is (703) 305-0353. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on (703) 305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MAS

A handwritten signature in black ink, appearing to read "N. E. Haeby", with a long vertical stroke extending downwards from the end of the name.